

**INITIAL STRUCTURAL STABILITY ASSESSMENT**  
**40 C.F.R. Part 257.73**  
**PLANT YATES ASH POND 2 (AP-2)**  
**GEORGIA POWER COMPANY**

EPA's "Disposal of Coal Combustion Residuals from Electric Utilities" Final Rule (40 C.F.R. Part 257 and Part 261), §257.73(d), requires the owner or operator of an existing CCR surface impoundment to conduct an initial and periodic structural stability assessments. The owner or operator must conduct an assessment of the CCR unit and document whether the design, construction, operation and maintenance of the CCR unit is consistent with recognized and generally accepted good engineering practices for the maximum volume of CCR and CCR wastewater which can be impounded therein.

The CCR surface impoundment known as Plant Yates AP-2 is located northwest of Newnan, Georgia, on Plant Yates property. AP-2 is formed by an engineered cross-valley embankment. The foundations generally consist of firm to dense clayey and silty sand, soft clay and silt, and dense to very dense saprolite.

Slope protection against surface erosion consists primarily of grassy vegetation on the interior and exterior dike slopes. Wave action on interior dike slopes is a potential concern at AP-2 due to the broad, open water characteristics of the impoundment. Wave action protection of the dike is provided by rip-rap armoring along the potentially impacted zone along the interior embankment surface. AP-2 is not operated in such a manner as to normally be subjected to rapid drawdown conditions, but the vegetation and rip-rap present on interior slopes provides protection against potential erosion associated with rapid drawdown.

The cross-valley embankments have been properly constructed using mechanical stabilization and compacted to a density sufficient to withstand the range of loading conditions.

Vegetated slopes of the dike are properly maintained to a manageable height to allow for routine inspections.

Primary discharge from AP-2 occurs through an overflow discharge structure located near the northeast corner of the impoundment and includes a channel that leads to a concrete holding tank where pond discharge is pumped through a discharge pipe to the river. There is no active discharge pipe passing

through or under the embankment. Additionally, there is an auxiliary spillway constructed primarily of concrete-filled Fabriform erosion protection blanket. The spillway entrance is comprised of rip-rap and a concrete control structure and the outfall is constructed with stair-stepping gabion baskets with concrete on the top surface. The outlet bottom is comprised of bedrock, with gabion basket-armored side slopes.

The spillway is designed, constructed, operated and maintained to adequately manage flow during and following the peak discharge from a 1,000-year, 24-hour storm. Initial inflow design studies indicated a potential for overtopping approximately 5 inches during the design storm. Since the completion of that study, the operating level of the impoundment has been lowered by approximately 12 inches, and will be maintained at or below this level to provide additional storage needed to prevent overtopping. This lower water level will be maintained until closure.

The downstream slopes of the embankment are subject to inundation from adjacent water bodies. The surface impoundment embankment is located atop a rise adjacent to the Chattahoochee River; there is also an intermediate bench separating the toe of the embankment from the adjoining riverbank area. Stone mattresses along the riverbank provide shoreline protection from the river flows. The lower portion of the intermediate bench is armored with riprap to protect against the effects of significant river level fluctuations during flooding situations. The current structures, including riverbank armoring and bench dike erosion control measures, were in place in 2009 when the maximum flood event recorded to date occurred, and provided the desired embankment protection. The riverbank armoring was retrofitted in 2014, enhancing the performance of the armoring structures.

I hereby certify that the structural stability assessment was conducted in accordance with 40 C.F.R. Part 257.73 (d).

  
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